

| Building Information | | |
|-----------------------------------|---------------------------|------------------------|
| Information Type | Existing | Proposed |
| Building Size / Stories | 1975 Sq. Ft. / 1 Story | 1975 Sq. Ft. / 1 Story |
| Lot Size | 5042 Sq. Ft. (0.116 Acre) | 5042 Sq. Ft. |
| Lot Coverage | 39% | 39% |
| Building Height | 14 Feet | 14 Feet |
| Number of Units/Bedrooms per Unit | 2 Units / 2 Bedrooms | 3 Units / 1 Bedroom |
| Number of Buildings | 1 Building | 1 Building |
| Impervious Area | 2028 Sq. Ft. | 2295 Sq. Ft. |
| Impervious Percentage | 40% | 45.5% |
| Zoning District | Community Business | Community Business |
| CAMA Land Use Classification | Urban | Urban |
| Off Street Parking Required | 2 Spaces | 3 Spaces |
| Flood Zone | AE--9999 | AE |
| Water Consumption per Day | 160 Gallons | 240 Gallons |
| Sewer Usage per Day | 160 Gallons | 240 Gallons |

Landscaping Note:

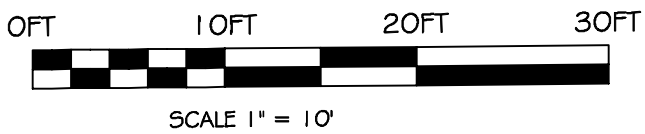
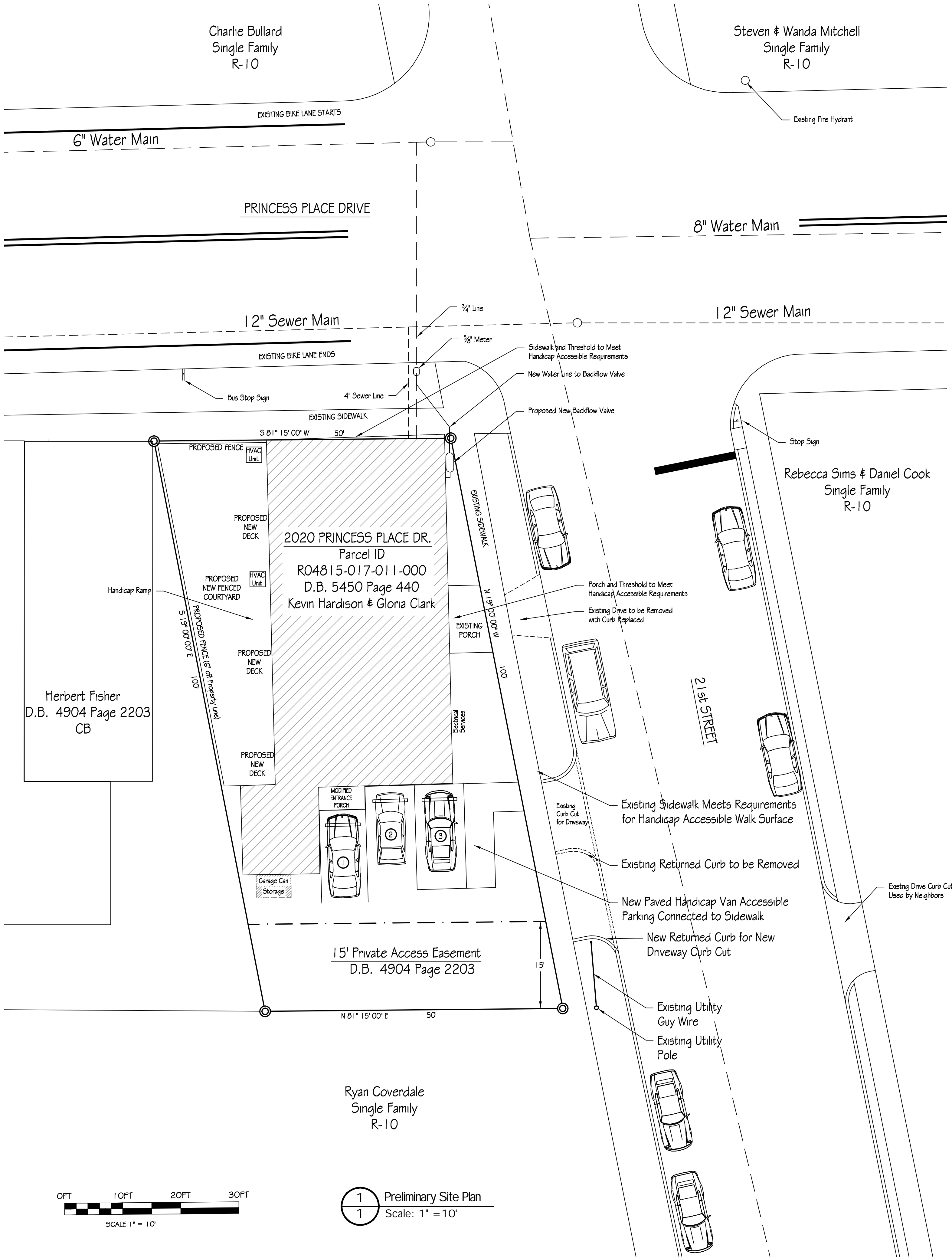
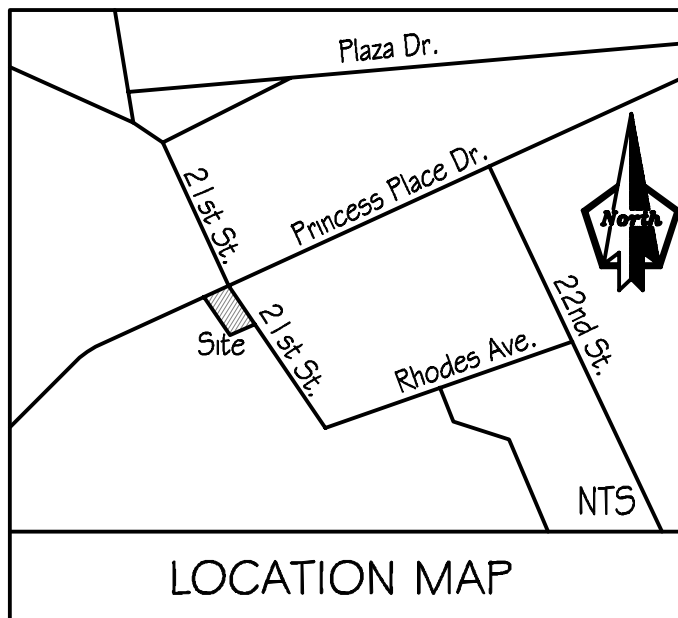
There are presently no trees on the site.

Setback Requirements:

| | |
|---------------|---|
| Front | 20 Feet |
| Rear | 25 Feet (abutting Residential District) |
| Interior Side | 5 Feet |
| Corner Side | 20 Feet |

General Notes:

Building is existing and there are no plans to modify the footprint of the building.
Substantially the entire site is in the AE flood zone on the current flood maps as well as the preliminary flood maps.
Fencing materials to be determined. Recommendations would be appreciated.
Proposed parking stalls are 8½ wide X 18' long.



1 Preliminary Site Plan
1 Scale: 1" = 10'

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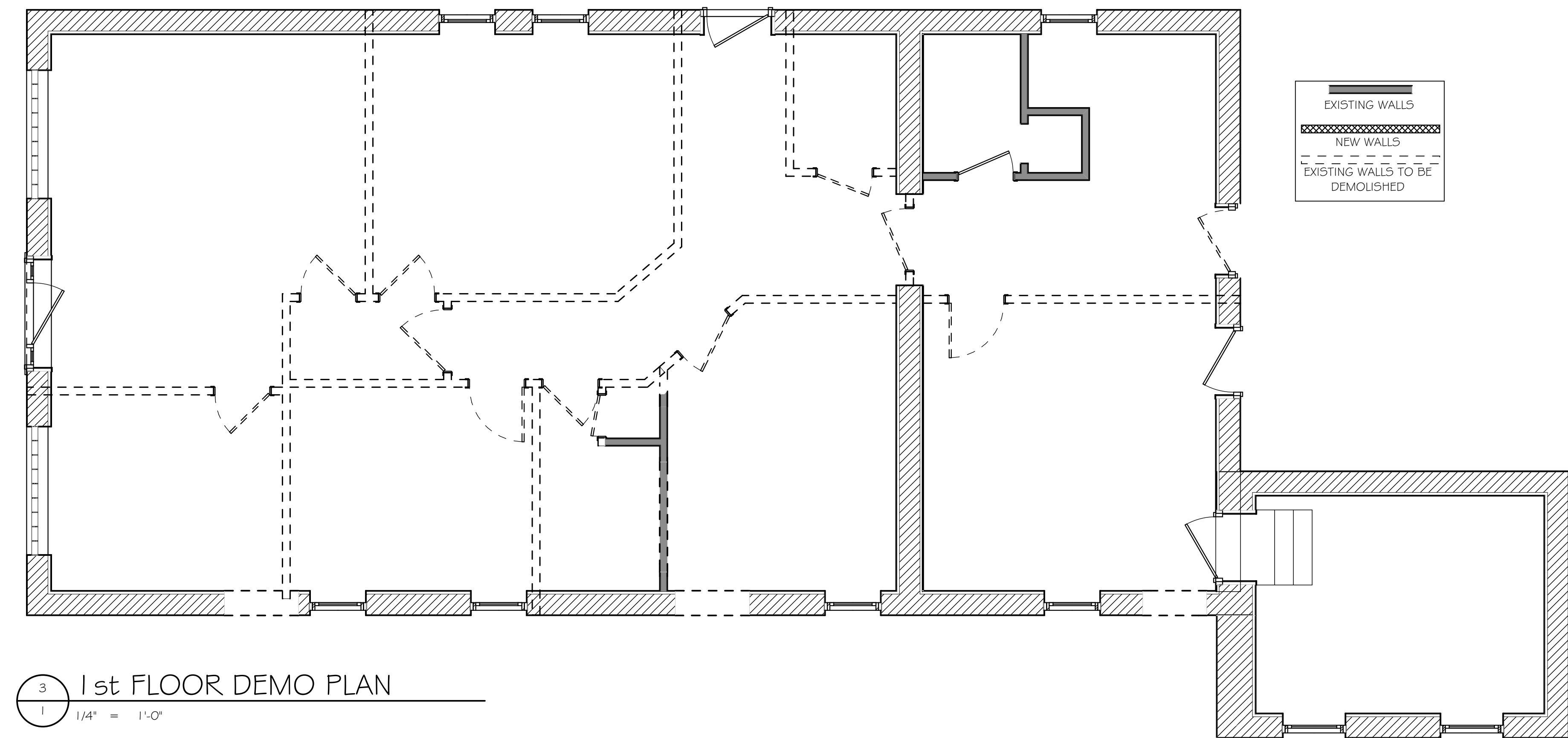
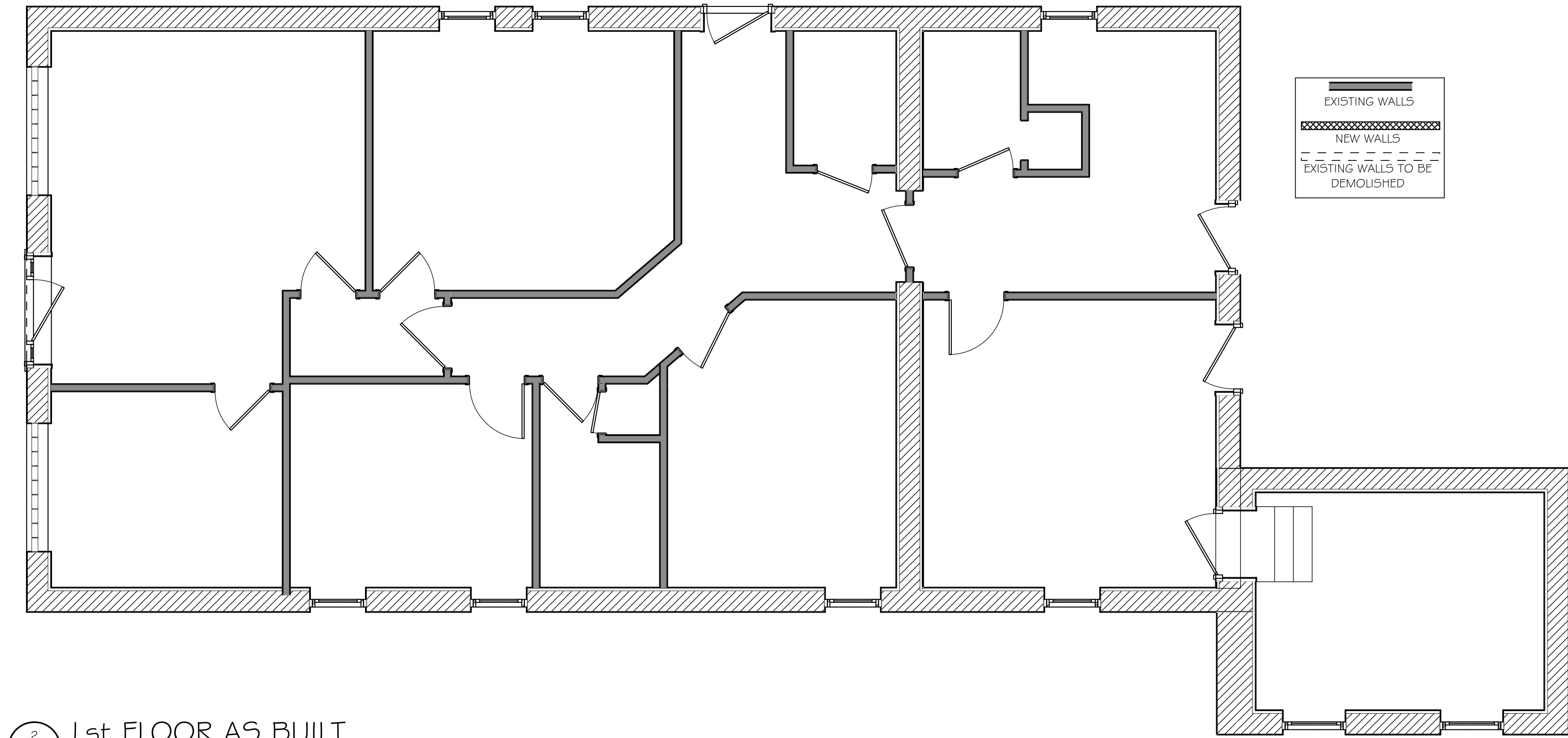


HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

SHEET TITLE
**PRELIMINARY
SITE PLAN**

DRAWN BY: T.E.H. APPROVED: T.E.H.
Hardison & Clark Plans 5-4-2016 1.dwg
DATE: May 4, 2016

SHEET CV-1
OF 12



HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE
WILMINGTON, NORTH CAROLINA 28405-2730

SHEET TITLE

1st FLOOR AS BUILT,
1st FLOOR DEMO PLAN

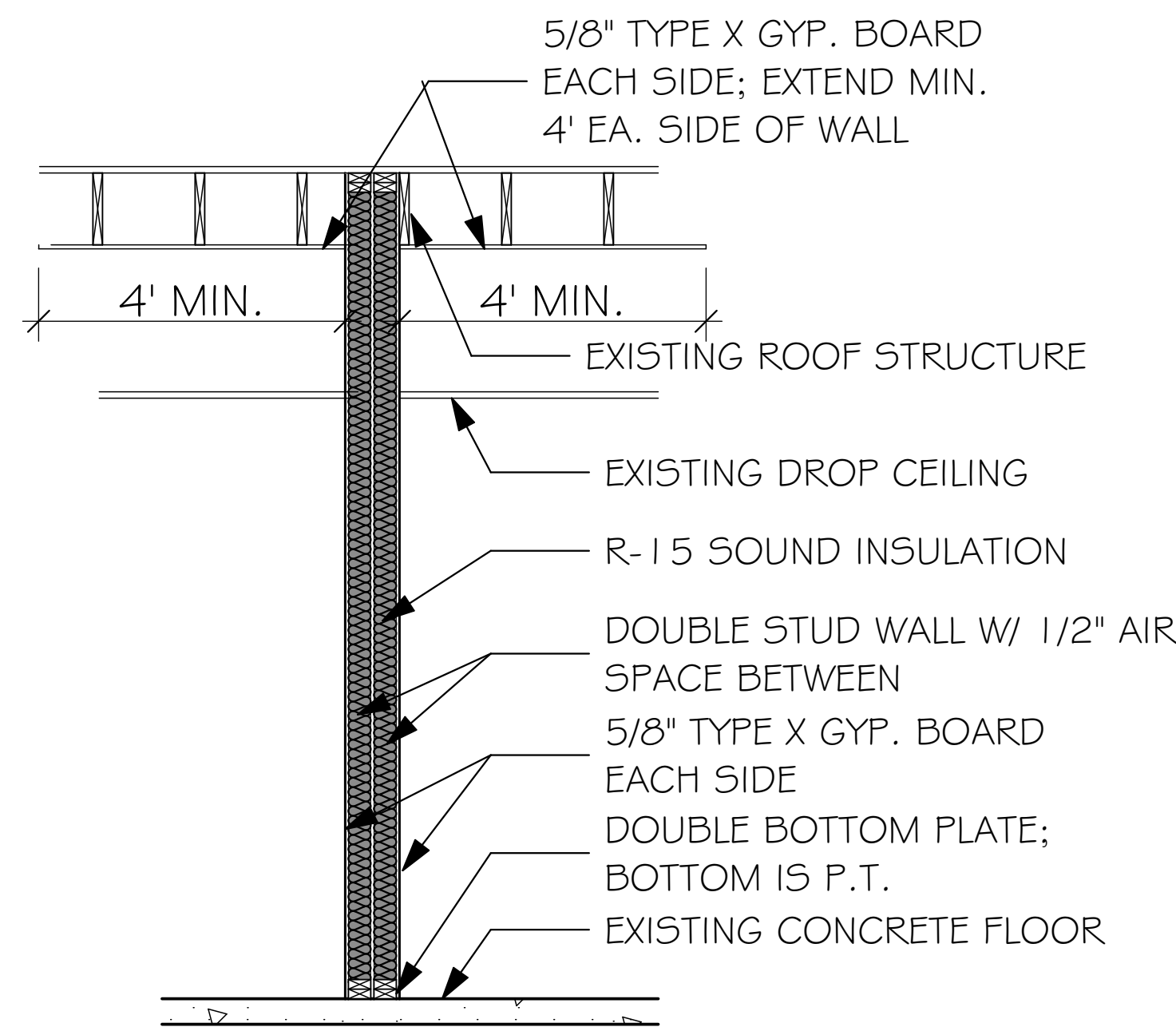
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APPROVED: TH

DATE: 5/4/2016

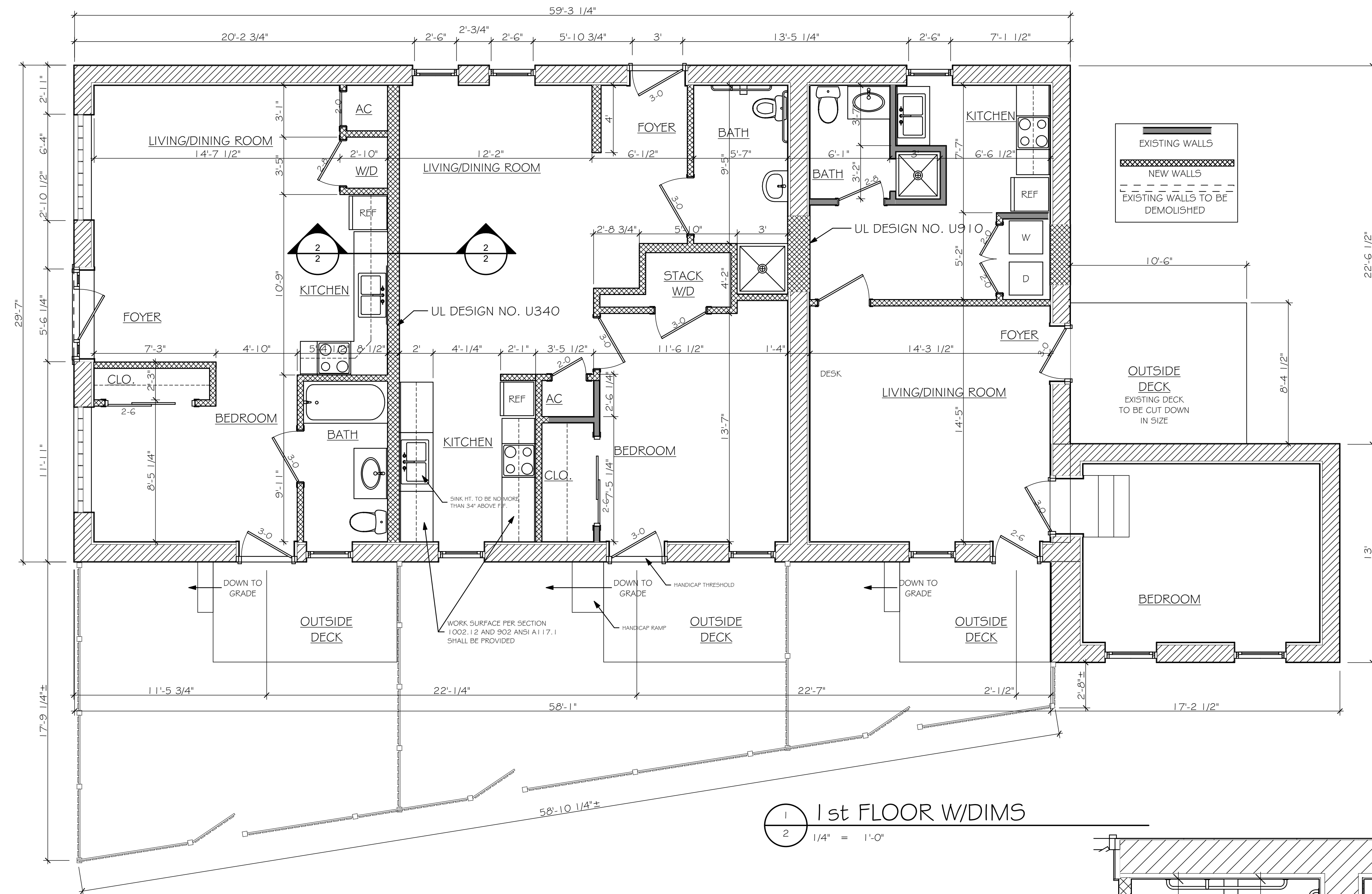
OWNER APPROVAL
BY:
DATE:

SHEET 1
OF 12

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2
2 INTERIOR NEW WALL SECTION
1/2" = 1'-0"



CONTROL WALL PER
PLUMBING DRAWINGS

SEAT WALL PER SECTION
608.2.1 ANSI A117.1

4
2 HANDICAP BATHROOM
1/2" = 1'-0"

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE
WILMINGTON, NORTH CAROLINA 28405-2730

SHEET TITLE
1st FLOOR W/DIMS,
INTERIOR NEW WALL
SECTION, HANDICAP
BATHROOM

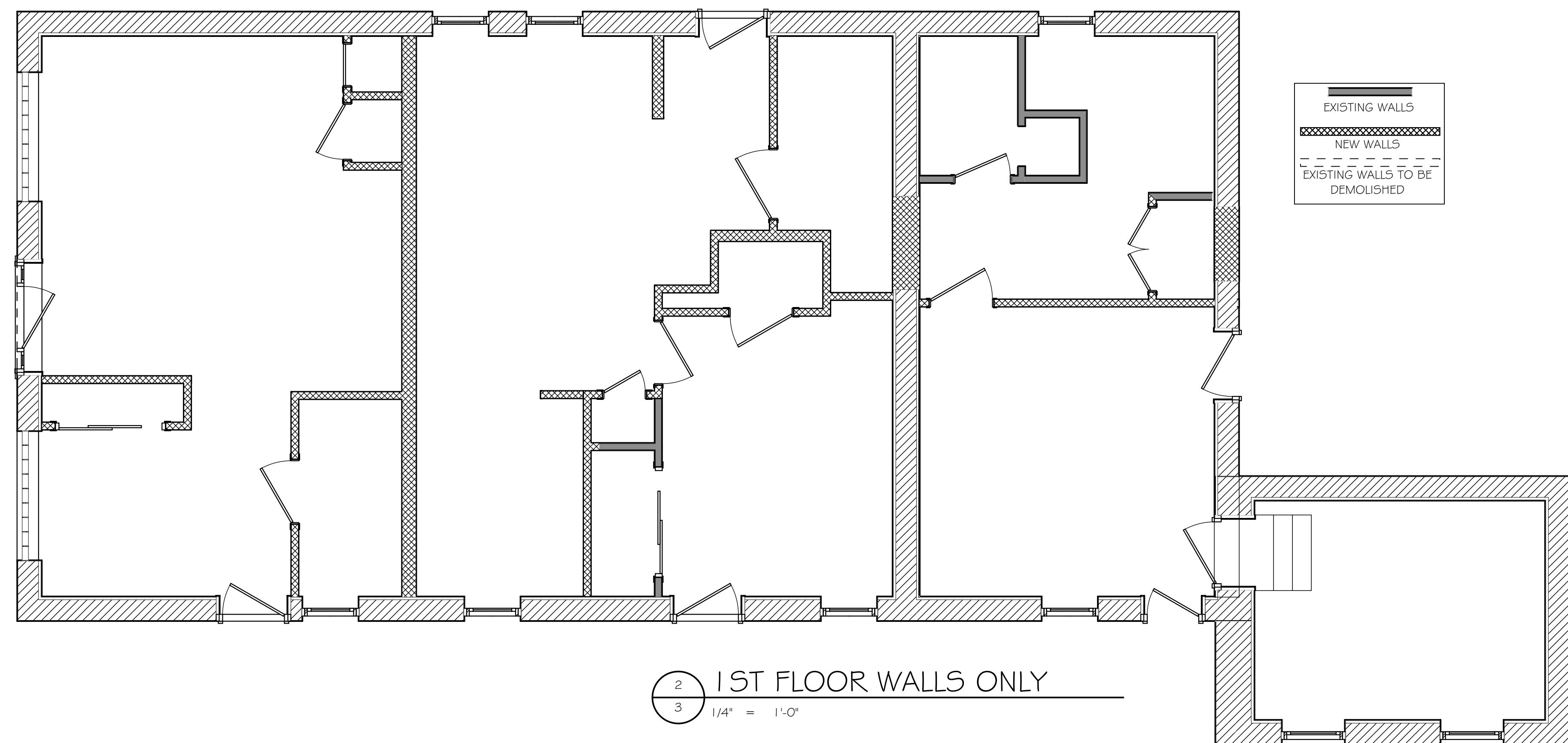
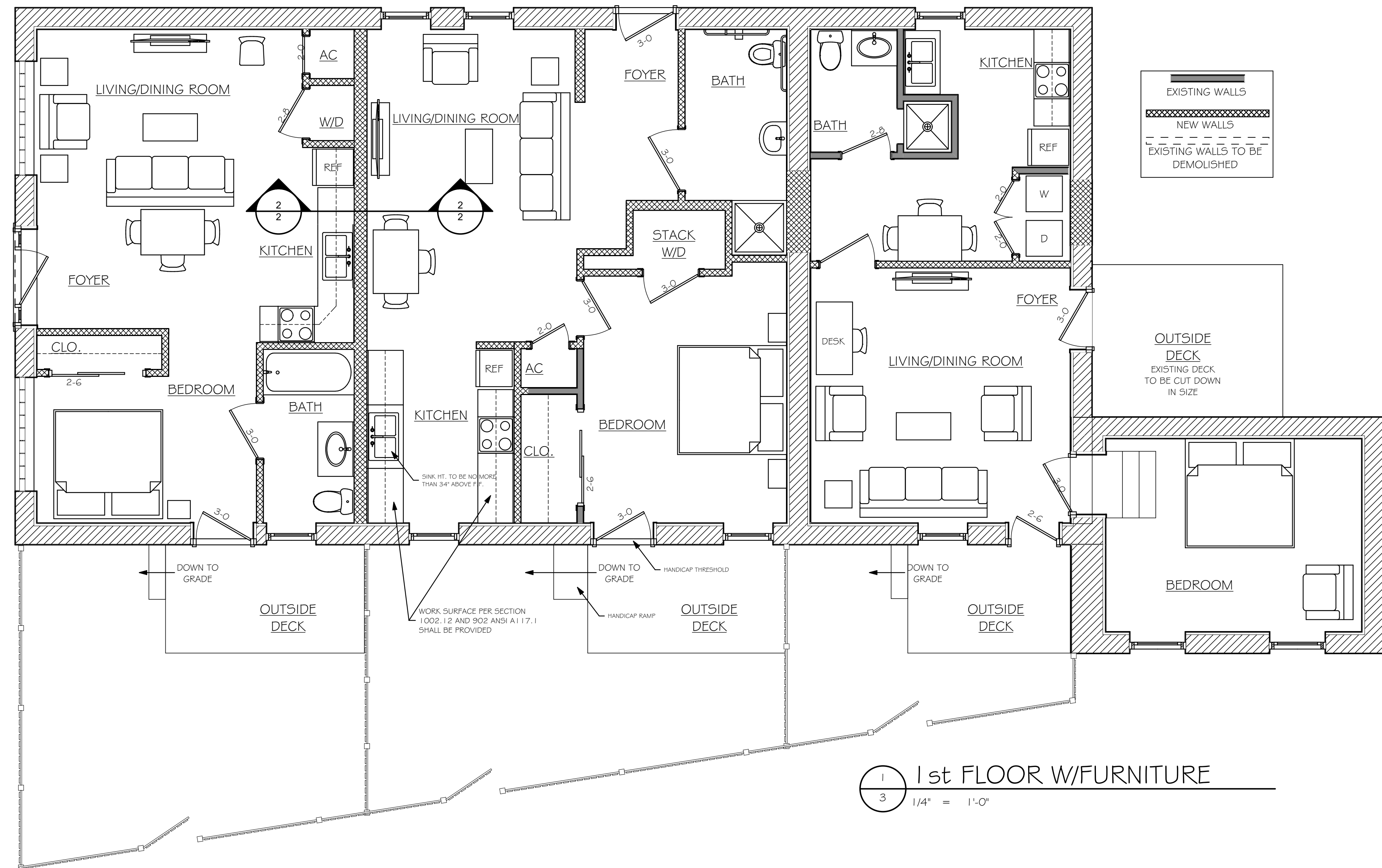
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PTP TH

DATE: 5/4/2016

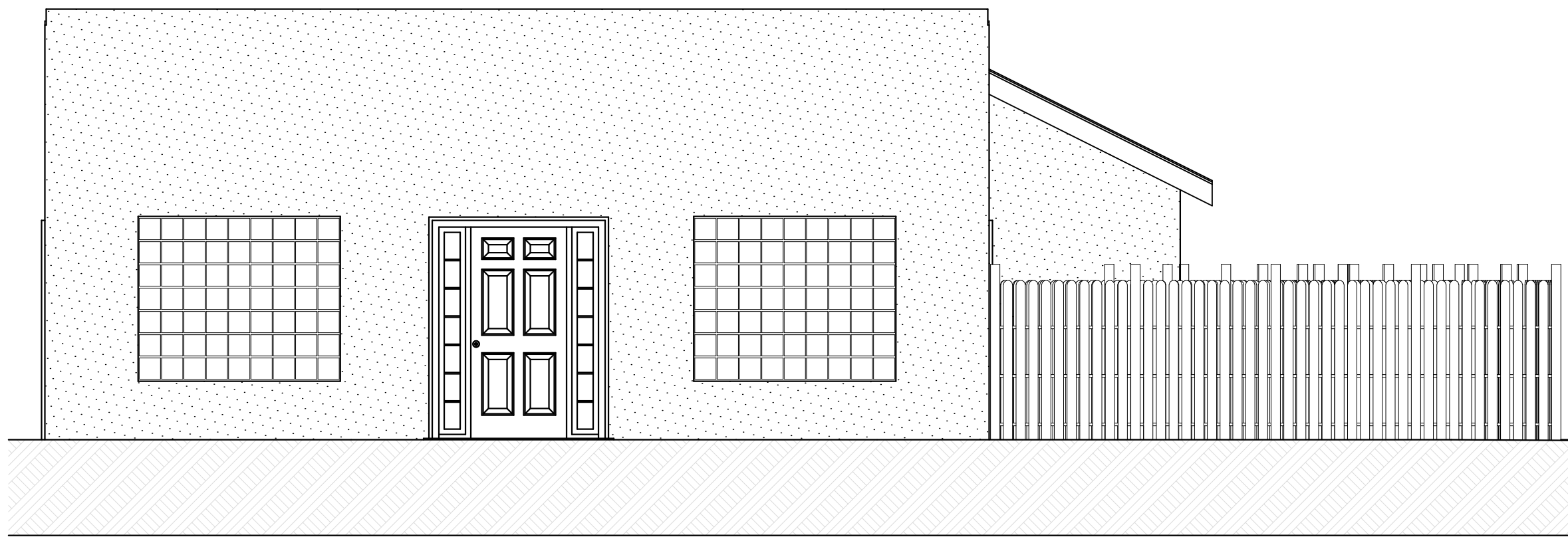
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BY:

DATE:

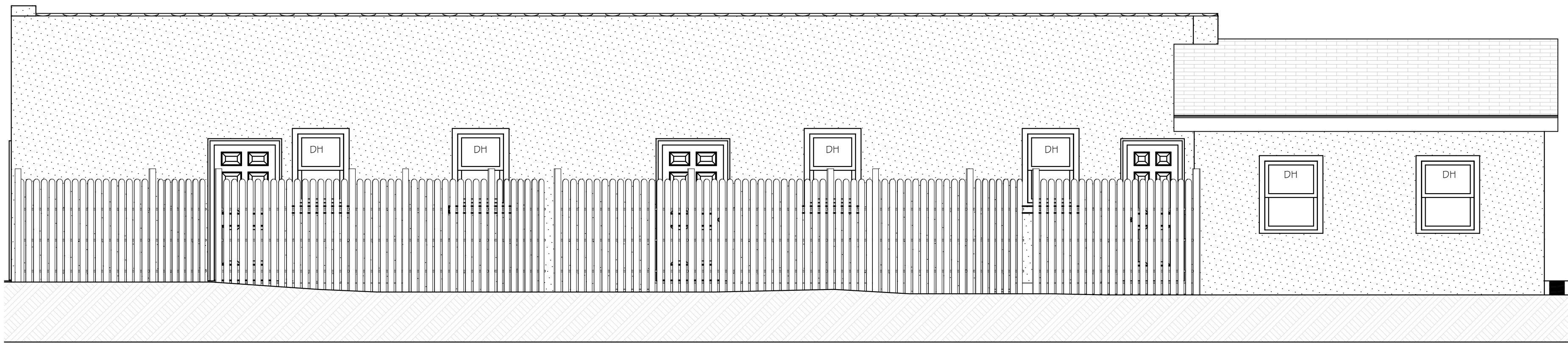
SHEET 2
OF 12



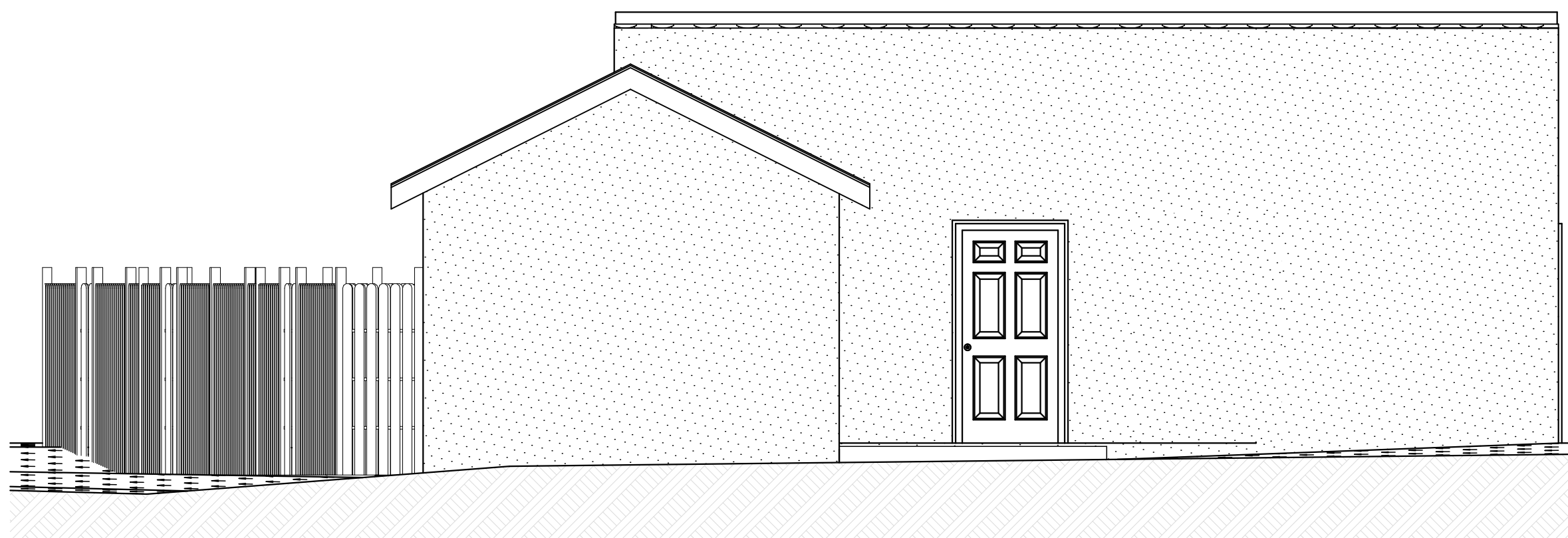
| | |
|---|----------|
| SHEET TITLE | |
| 1st FLOOR W/FURNITURE, 1ST FLOOR WALLS ONLY | |
| DRAWN BY: | APPROVED |
| PTP | TH |
| DATE: 5/4/2016 | |
| OWNER APPROVAL By: | |
| DATE: | |
| SHEET 3 OF 12 | |



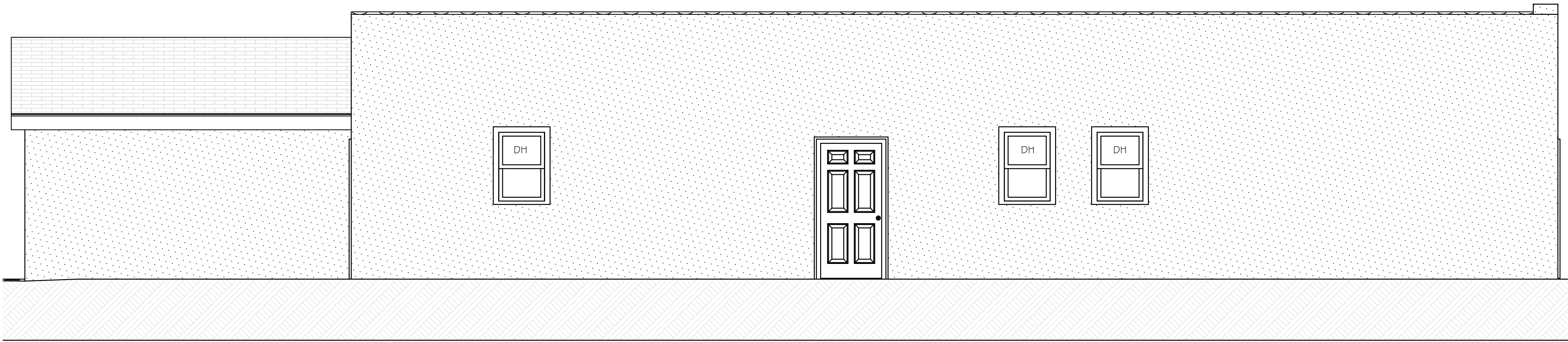
2 FRONT ELEVATION
4 1/4" = 1'-0"



3 RIGHT SIDE ELEVATION
4 1/4" = 1'-0"



4 REAR ELEVATION
4 1/4" = 1'-0"



1 LEFT SIDE ELEVATION
4 1/4" = 1'-0"



HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE
WILMINGTON, NORTH CAROLINA 28405-2730

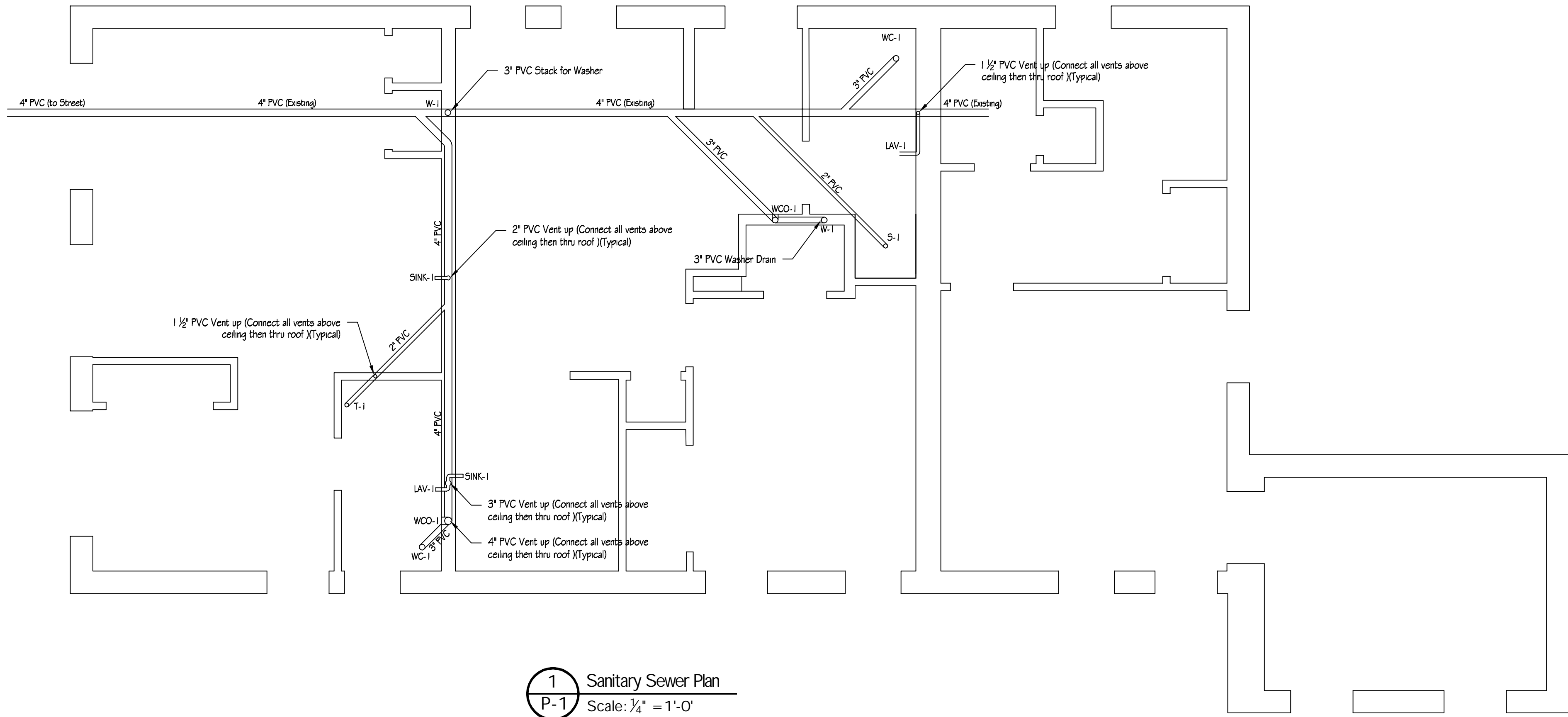
SHEET TITLE
LEFT SIDE ELEVATION,
FRONT ELEVATION,
RIGHT SIDE ELEVATION,
REAR ELEVATION

DRAWN BY: APPROVED
PTP TH

DATE: 5/4/2016

OWNER APPROVAL
BY:
DATE:

SHEET 4
OF 12



1 Sanitary Sewer Plan
P-1 Scale: 1/4" = 1'-0"

| SANITARY PLUMBING FIXTURE SCHEDULE | | | | | | |
|------------------------------------|-------------------------|-------------------------------|--|-----------------------|------------------------|------------------|
| MARK | FIXTURE | MANUFACTURER MODEL | DESCRIPTION | SUPPLY CONNECTION HOT | SUPPLY CONNECTION COLD | WASTE CONNECTION |
| WC-1 | WATER CLOSET | PROFLO PF1401TWH | TOILET WITH SEAT (PF9312WH) COLOR WHITE | N/A | 1/4" | 3" |
| LAV-1 | LAVATORY | PROFLO PF5414WH | WALL HUNG ONE-PIECE LAVATORY, COLOR WHITE | 1/4" | 1/4" | 1 1/2" |
| LAV-1 | LAVATORY FAUCET | PFISTER PG1435000 | 4" CENTER BATHROOM LAVATORY FAUCET (CHROME) | 1/4" | 1/4" | 1 1/2" |
| SINK-1 | KITCHEN SINK | PROFLO PF5R332264 | STAINLESS STEEL DOUBLE BOWL KITCHEN SINK | 1/4" | 1/4" | 1 1/2" |
| SINK-1 | KITCHEN FAUCET | AMERICAN STANDARD A4175700002 | THREE HOLE, SINGLE HANDLE KITCHEN FAUCET, COLOR CHROME | Hose | Hose | 3" |
| T-1 | FIBERGLASS TUB | AMERICAN STANDARD A2390202011 | STANDARD FIBERGLASS TUB WITH INTEGRAL SKIRT/APRON, COLOR WHITE | N/A | N/A | 1 1/2" |
| T-1 | TUB/SHOWER MIXING VALVE | DELTA B114900 SERIES | TUB/SHOWER MIXING VALVE WITH SHOWER HEAD AND SPIGOT | 1/2" | 1/2" | N/A |
| S-1 | SHOWER MIXING VALVE | DELTA B112900 SERIES | TUB/SHOWER MIXING VALVE WITH SHOWER HEAD | 1/2" | 1/2" | N/A |
| W-1 | WATER OUTLET BOX | OATEY 38528 | QUARTER-TURN BALL VALVE PEX WASHING MACHINE OUTLET BOX | Hose | Hose | 3" |
| WH-1 | WATER HEATER | WHIRLPOOL E2F4OLD045V | 38 GALLON LOWBOY ELECTRIC WATER HEATER | 3/4" | 3/4" | N/A |
| WH-1 | WATER HTR DRAIN PAN | CAMCO 20854.0 | 28 INCH EMERGENCY WATER HEATER DRAIN PAN | N/A | N/A | 1" |

| SANITARY SEWER FIXTURE LOAD CALCULATION | | | | |
|---|-------------------|----------|------------------------|------------------|
| MARK | FIXTURE/EQUIPMENT | QUANTITY | WASTE | |
| | | | WASTE F.U. PER FIXTURE | TOTAL WASTE F.U. |
| WC-1 | WATER CLOSET | 3 | 3.0 | 9.0 |
| LAV-1 | LAVATORY | 3 | 1.0 | 3.0 |
| SINK-1 | KITCHEN SINK | 3 | 2.0 | 6.0 |
| T-1 | SHOWER/TUB | 1 | 2.0 | 2.0 |
| S-1 | SHOWER | 2 | 2.0 | 4.0 |
| W-1 | WASHER | 3 | 2.0 | 6.0 |
| TOTALS | | | | 30.0 |
| MAXIMUM WASTE DEMAND AT 30.0 F.U. - 3" SANITARY SEWER WASTE EXISTING SEWER LINE IN BUILDING IS 4" | | | | |
| FIXTURE UNITS BASED ON 2012 N.C.PLUMBING CODE | | | | |

PLUMBING SPECIFICATIONS

- Contractor shall furnish all labor and materials required for a complete and operational system in accordance with all national, state and local codes and health regulations having jurisdiction. Contractor shall pay all fees and permits required.
- Contractor shall guarantee installation against defects in workmanship, equipment and material furnished on project for a period of one year from date of final acceptance. provide extended guarantees for equipment such as water heaters when required.
- Submit for approval the number of shop drawings and manufacturers literature on all plumbing fixtures and materials as required to the Architect or Owner's representative.
- Contractor shall visit the job site and examine premises at and adjacent to proposed work, verify existing pipe sizes, location and suitability for connection to the new system prior to bid.
- Drawings are diagrammatic and intend to show approximate location of piping, fixtures, etc. Contractor shall review all architectural, civil, structural, electrical and mechanical drawings and coordinate with other trades for pipe routing and equipment placement. Install all work without conflict with other trades and make minor alterations as required without additional cost to Owner.
- Contractor shall cooperate fully with Owner in scheduling and making connections to existing service lines so as to cause the least possible inconvenience and shortest possible interruption of service.
- Contractor shall coordinate with Electrical Contractor all voltages, electrical loads, etc., of electrically operated equipment prior to purchasing equipment. All equipment shall be UL and NEMA approved.
- Maintain a minimum clearance of 3'-0" in front of all electrical panels and 1'-0" either side of panel to structure. all piping shall be routed around this area.
- Contractor shall furnish access panels, to be installed by the general contractor, as required for plumbing installations.
- All sanitary vent roof penetrations shall be a minimum distance of 10'-0" away from all rooftop mechanical equipment or other air intake devices.
- All horizontal and vertical piping shall be supported in accordance with state and local requirements. Supports shall securely hold piping, prevent vibration, compensate for static and operational conditions of the various systems, and shall not be subject to electrolytic action.
- Contractor to coordinate and install, if required for this project, new water meter as per requirements of local utility company. Contractor shall include all tap fees and costs into bid for a complete installation.
- Domestic water piping outside of the building is existing. Tie new water lines to existing.
- All domestic hot water and cold water piping shall be PEX with standard compression fittings. Piping passing under and through concrete slab or walls shall be protected with a protective sheeting or wrapping to prevent damage to the piping.
- Valves serving domestic water systems shall be ball valves or approved equal. All valves shall be located so as to be accessible by maintenance personnel.
- All water piping shown routed in exterior walls shall be located inside the building insulation and finished wall to prevent freeze damage.
- Contractor shall field verify the location and invert at the point of connection to the sewer system before determining final routing of soil, waste and vent piping.
- All soil, waste and vent piping shall be schedule 40 PVC plastic pipe where allowed by local authority having jurisdiction for this installation. Provide 3m fire barrier caulk CP-25 caulking, or u.l. approved equal, at any penetration of fire rated assemblies.
- All soil, waste and vent piping shall be uniformly graded and shall have a slope of not less than 1/4" per foot for piping 3" in diameter and smaller and 1/8" per foot for pipe larger than 4" in diameter.

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

SHEET TITLE

**SANITARY
SEWER
PLAN**

DRAWN BY: T.E.H. APPROVED T.E.H.

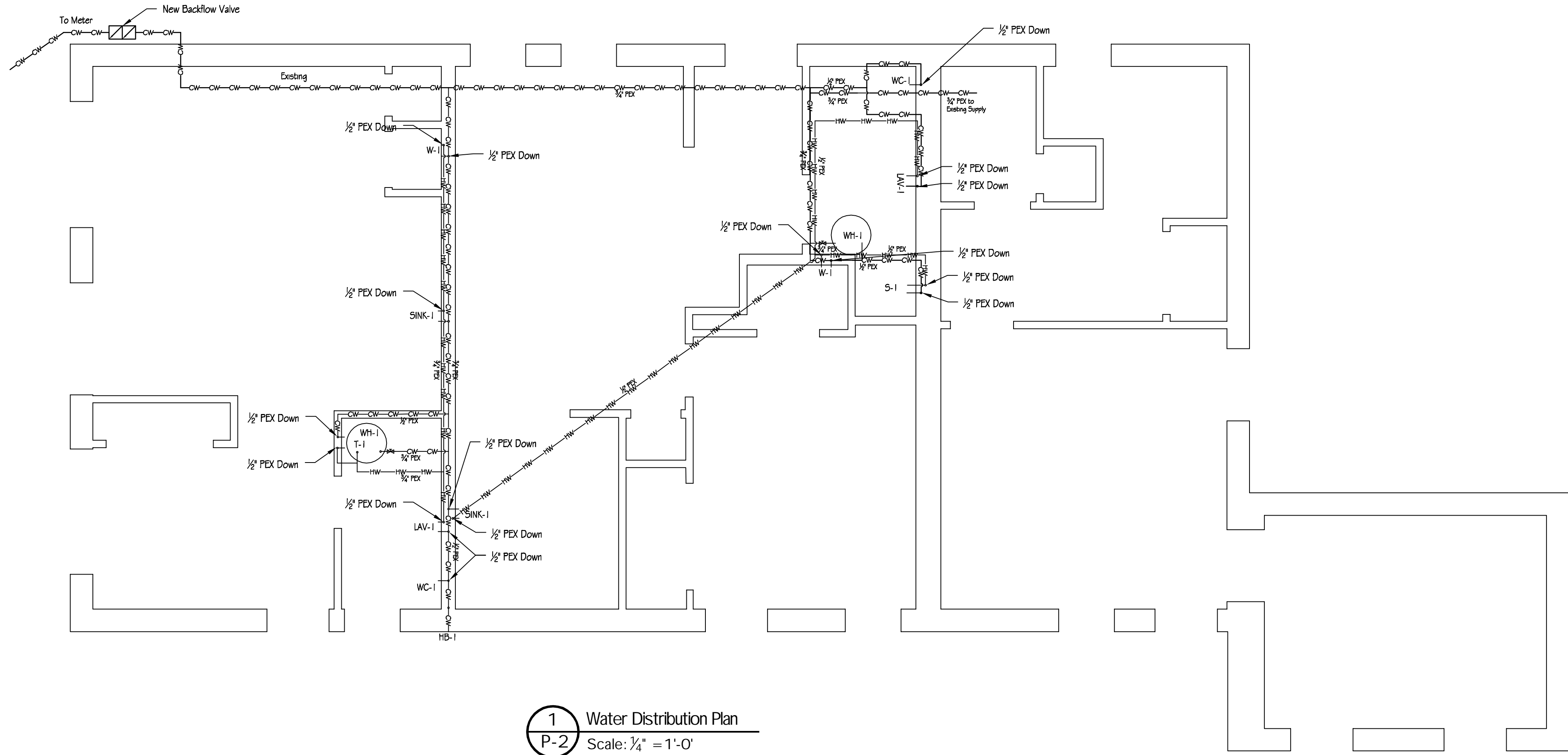
Hardison & Clark Plans 5-4-2016 2.dwg

DATE: May 4, 2016

OWNER APPROVAL BY:

DATE:

SHEET P-1
OF 12



1 Water Distribution Plan
P-2 Scale: 3/4" = 1'-0"

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- All soil, waste and vent piping shall be uniformly graded and shall have a slope of not less than 1/4" per foot for piping 3" in diameter and smaller and 1/8" per foot for pipe larger than 4" in diameter.
- All soil and supply pipes penetrating fire walls will need firestop pipe collars properly sized and installed to protect the integrity of the firewall.

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

SHEET TITLE

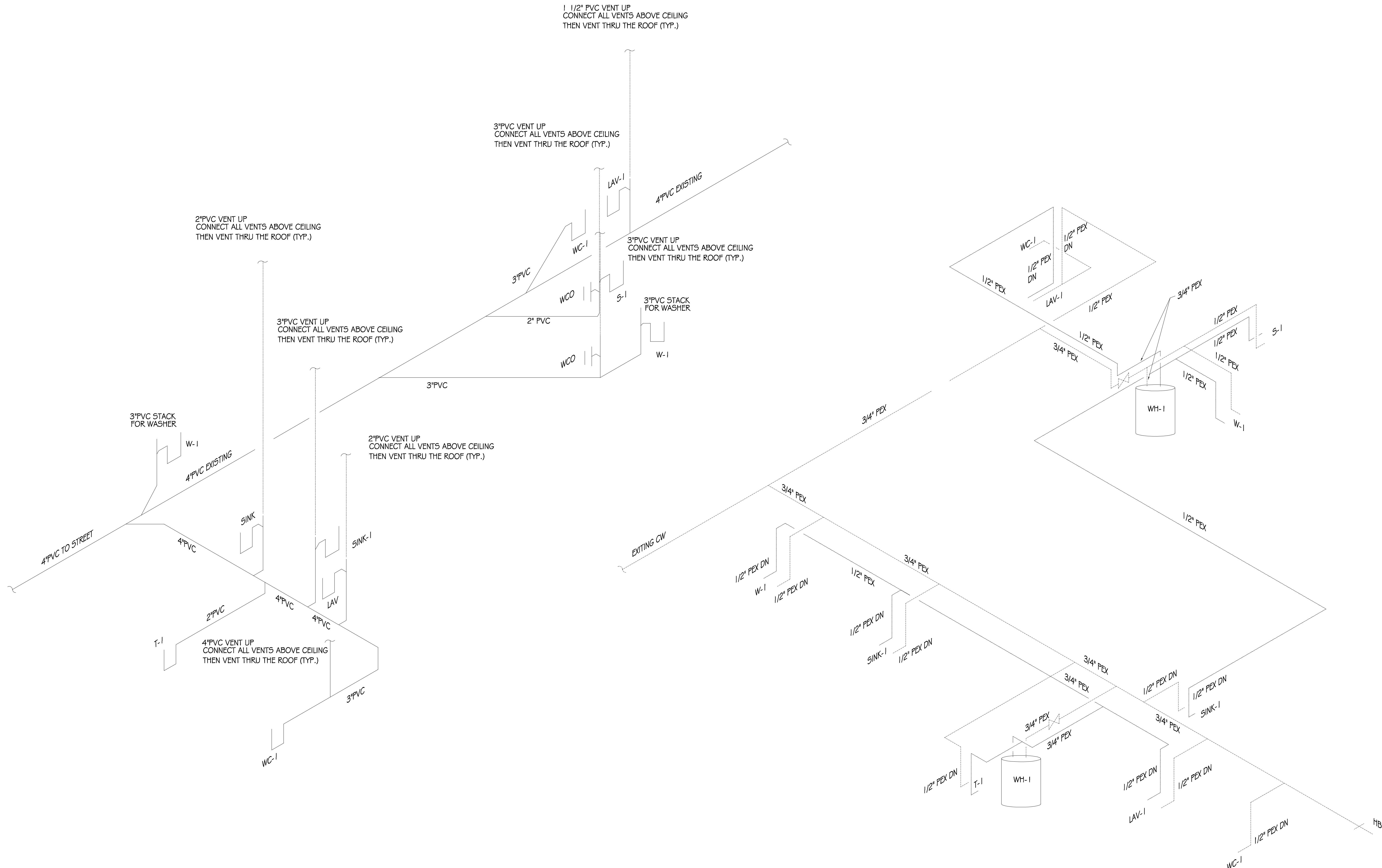
**WATER
DISTRIBUTION
PLAN**

DRAWN BY: T.E.H. APPROVED: T.E.H.

Hardison & Clark Plans 5-4-2016 1.dwg

DATE: May 4, 2016

SHEET P-2
OF 12



1 WASTE PLUMBING ISOMETRIC
P-3 SCALE: NTS

2 WATER PLUMBING ISOMETRIC
P-3 SCALE: NTS

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

| | |
|---------------------------------------|--------------------|
| SHEET TITLE | |
| PLUMBING ISOMETRICS | |
| DRAWN BY: T.E.H. | APPROVED T.E.H. |
| HARDISON & CLARK PLANS 5-4-2016 2.dwg | |
| DATE: May 4, 2016 | |
| OWNER APPROVAL BY: | |
| DATE: | |
| SHEET P-3 | |
| OF 12 | |

16.1 General:

A. All work shall be installed in accordance with the latest edition of the following codes and standards in so far as they apply:

1. The National Electrical Code, 2011 Edition
2. The National Electrical Safety Code
3. Underwriter's Laboratories, Inc., Standards and Approved Listings
4. Electrical Testing Laboratories Standards
5. North Carolina State Building Code, latest edition and revisions
6. All local codes and ordinances
7. NFPA 72
8. ADA

B. The Contractor shall obtain all permits, licenses, inspections, etc., required for the work and shall pay for the same. The Contractor shall furnish a final certificate of inspection and approval from the authority having jurisdiction prior to acceptance of the work.

C. All work shall be done by skilled mechanics and shall present a neat, trim and workmanlike finish when completed.

16.2 Coordination:

A. Do not scale electrical drawings. Locations shown are approximate. The Contractor shall visit the site for exact measurements in the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various fittings, conduit, etc., and do not show all offsets and other installation details which may be required.

B. Work with other Contractors

16.3 The Electrical Contractor shall make final electrical connections for all HVAC equipment.

16.4 Materials:

All materials shall be new and shall bear the manufacturer's name, trade name, and UL label where such a standard has been established for the particular material. Materials shall be the standard product W/R4 insulations of manufacturer's regularly engaged in the manufacture of the required type of equipment and the manufacturer's latest approved design.

16.5 Wiring Methods:

Match existing wiring methods. All work shall be in conduit.

16.6 Boxes:

Junction, switch, receptacle and outlet boxes for interior use in dry locations shall be zinc coated or cadmium plated sheet steel, 4" square and 2-1/8" deep, unless otherwise indicated on the contract drawings. Exterior and exposed boxes shall be cast type with hubs. Smaller and shallower outlet boxes will be permitted only by special permission of the Engineer where such boxes are necessary due to structural conditions encountered. Where larger junction boxes are required, they shall be fabricated from no. 10, 12, 14 or 16 gauge sheet steel as required by the Underwriter's Laboratories, Inc., and galvanized after fabrication. All junction boxes shall have screw fastened covers. Outlet boxes shall be provided with extension plaster rings where required by structural and finish conditions. Set wall mounted boxes at elevations to accommodate mounting heights indicated and specified in section for outlet device. Boxes are shown on drawings in approximate locations unless dimensioned. Adjust box location up to 10 feet (3 m) if required to accommodate intended purpose. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only. Install boxes to preserve fire resistance rating of partitions and other elements, using approved materials and methods. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes. Use flush mounting outlet box in finished areas. Use stamped steel bridges to fasten flush mounting outlet box between studs.

16.7 Raceways and Fittings:

A. Raceways shall be rigid galvanized steel, electrical metallic tubing and/or schedule 40 PVC with appropriate fittings. EMT fittings shall be hex nut steel compression type with insulated throats.

B. Flexible metal conduit and liquid tight flexible metal conduit: UL approved and labeled with hex nut steel fittings.

C. Junction and outlet boxes for interior use in dry locations shall be zinc coated or cadmium plated sheet steel, 4" square by 2-1/8" deep, except single wiring device boxes may be single gang.

D. Raceways, boxes, fittings, etc., shall be solidly fastened to masonry with lead anchors and machine screws or toggle bolts. Raceways shall be fastened to structural steel with beam clamps, conduit hangers, trapeze hangers, or other approved devices.

E. Boxes installed in concealed locations shall be set flush with the finished surfaces and shall be provided with extension rings (or plastic covers) where required. Boxes shall be rigidly installed.

F. Raceways passing through rated walls, floors, etc., shall be installed in accordance with published UL configurations.

G. Raceways shall be sized as shown and/or as required by the NEC. minimum size shall be 1/2"

H. Raceway installation:

Outdoors (exposed): use rigid steel or IMC. (rigid steel where subject to physical damage). Outdoors (concealed): use rigid steel or IMC Boxes and enclosures (outdoors): NEMA 250, type 3r. Indoors (exposed): use EMT, rigid steel or IMC. (rigid steel where subject to physical damage). Boxes and enclosures (indoors): NEMA 250, type 1, except as follows: damp and wet locations: NEMA 250, type 4, stainless steel or non-metallic

16.8 Conductors

A. Conductors W/R4 insulation shall be copper, minimum size #12. sizes #10 and #12 shall be solid, #8 and larger, stranded. Insulation shall be type THW, THWN or THHN for feeders, type THWN or THHN for branch circuits, and type use for directly buned conductors W/R4 insulation.

B. Conductors shall be color coded throughout, sizes #10 and #12 shall be factory coded, sizes #8 and larger may be color taped on the job. Color coding shall be: phase a- black, phase b- red, phase c- blue, neutral- white, ground- green for 120/208 volt systems. Color coding shall be: phase a- brown, phase b- orange, phase c- yellow, neutral- gray, ground-green for 277/480 volt systems.

C. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.

D. All conductors shall be continuous without splice between junction, outlet, device boxes, etc., unless noted otherwise. No splicing will be permitted in panelboard cabinets, safety switches, etc.

16.9 Trenching:

Direct buried raceways shall be 24" deep to the top of the raceway. Trench in compliance with local codes and regulations. Backfill to 95% compaction and re-sod grassed areas to match existing.

16.10 Marker Tape:

All underground conductors shall be identified by underground line marking tape located directly above the conductors at 6 to 8 inches below finished grade. Tape shall be permanent bright-colored, continuous foil backing suitable for use with metal detection devices, for direct burial not less than 8 inches and 4 mils thick. Printed legend shall be indicative of type of underground line below.

16.11 Wiring Devices:

Provide heavy duty industrial specification grade brown switches. Match device color to existing installed devices. All devices shall be rated 20 amperes. Hubbell HLB 5362 and HLB 1221 or equal by Pass and Seymour or Levton. Provide 302 stainless steel device plates.

16.12 Safety Switches:

NEMA KS 1, type HD with externally operable handle interlocked (defeatable) to prevent opening front cover with switch in on position, enclosed load interrupter knife switch. Mechanisms shall be non-teasible, positive, quick make-quick break type. Handle lockable in on or off position. Switches shall have handles whose positions are easily recognizable in the on or off position. Fuse clips shall be designed to accommodate NEMA fu1, class R fuses.

16.13 Enclosed Circuit Breakers:

Enclosed circuit breakers shall be molded case, UL listed and shall be rated as shown on the drawings with appropriate withstand ratings and current limiting characteristics as required to safely function and protect the distribution system. Accessories shall be provided as noted or required and shall be UL listed and field installable.

16.14 Circuit Breakers:

Circuit breakers indicated to be installed in existing panelboards shall be molded case, UL listed and shall be rated as shown on the drawings. Provide all necessary mounting hardware and accessories as required to install new circuit breakers. New circuit breakers shall match existing types installed and be rated consistent with the existing equipment to maintain equipment ratings. Accessories shall be provided as noted or required and shall be UL listed and field installable.

16.15 Identification Nameplates:

Furnish and install engraved laminated phenolic nameplates for all safety switches, panelboards and electrical equipment supplied for identification of equipment controlled, served, phase, voltage, etc. Nameplates shall be securely attached to equipment with metal screws and shall identify by name the equipment control attached, etc. Letters shall be approximately 1/4-inch high minimum. Embossed, self-adhesive plastic tape is not acceptable. Nameplate material colors shall be black surface with white core for the normal power system and red surface with white core for the emergency power system.

16.16 Other Materials and Equipment:

Other materials and equipment to be as shown on the drawings. Where no specific material type is mentioned, a high quality product of a reputable manufacturer may be used provided it conforms to the requirements of these specifications.

16.17 Grounding:

All grounding shall be in accordance with article 250 of the NEC. In addition, the following requirements shall be met:

A. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground. All ground connections to ground conductors W/R4 insulation shall be accessible.

B. Equipment ground continuity shall be maintained through flexible metal conduit.

C. All wiring devices equipped with grounding connection shall be solidly grounded to ground system with grounding conductors.

D. All circuits shall contain an insulated, green, copper grounding conductors, sized in accordance with table 250-122 of the NEC. Grounding conductors shall be connected to equipment ground bus in panelboard and securely attached and grounded to the device or enclosure at the other end.

E. All equipment enclosures, and non-current metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.

16.18 Electrical Distribution System Tests:

A. All current carrying phase conductors and neutrals shall be tested as installed and before connections are made, for insulation resistance and accidental grounds. This shall be done with a 500 volt megger.

1. Minimum readings shall be one million (1,000,000) or more ohms for #6 wire and smaller, 250,000 ohms or more for #4 wire or larger between conductors W/R4 insulation and between conductors and the grounded metal raceway.

2. After all fixtures, devices and equipment are installed and all connections completed to each panel, The Contractor shall disconnect the neutral feeder conductors from the neutral bar and take a megger reading between the neutral bar and grounded enclosure. If this reading is less than 250,000 ohms, the Contractor shall disconnect the branch circuit neutral wires from this neutral bar. He shall then test each one separately to the panel and until the low reading ones are found. The contractor shall correct troubles, reconnect and retest until at least 250,000 ohms from the neutral bar to the grounded panel can be achieved with only the neutral feeder disconnected.

3. The Contractor shall certify in writing the above has been done and tabulate the megger readings for each panel.

B. Test all systems modified or disturbed by this construction for proper operation and function in a manner approved by the system manufacturer. Provide written certification of all tests.

16.19 Existing Buildings And Construction:

A. The Contractor is cautioned that work to be performed under this contract is to be accomplished in an existing occupied building. All such work shall be scheduled and arranged to be done at the convenience of the Owner so as not to interfere with, disrupt, or disturb normal operations in the building. The Contractor shall obtain approval from the Owner before proceeding with work in existing buildings and shall work in existing buildings on schedule as agreed upon with the Owner.

B. The Contractor shall, at all times, provide safety barriers, protective devices, screening, dust barriers, etc., as required to maintain the safety and comfort of the building's personnel and/or occupants in or near his work area.

C. The Contractor shall be responsible for cleanup in connection with his work in existing buildings. All demolished equipment and materials shall become the property of the Contractor. At the end of each working day, debris, boxes, waste, etc., shall be removed from the buildings and properly disposed of. Contractor equipment, materials, etc., must be properly stored, stacked and located as instructed by the Owner.

D. The Contractor shall do all cutting, patching, finishing, repairing, painting, etc., necessary for work to be installed in existing buildings. All finishes shall be left to equal finish and condition prior to cutting. No cutting of structural members will be allowed. Remove/replace existing lay-in ceiling as required to accomplish work. All cutting of walls, floors, roofs, etc., shall be repaired and/or replaced to equal finish prior to cutting. Core drill all holes for piping and conduit. The Contractor shall route pipe, conduits, duct work and locate equipment as approved by the Owner's representative. Routings and locations shall be firmly established and approved before proceeding with any phase of the work.

E. The Contractor shall be responsible for any and all damage to the existing buildings, grounds, walkways, paving, etc., caused by the work, The Contractor and/or his personnel, and/or his equipment in the accomplishment of this work. Such damages shall be repaired and/or replaced by the Contractor at no additional cost to the Owner, to finish equal to that finish prior to damage. The Owner's representative shall be the judge as to equal finishes, etc.

F. Coordinate power outages with the Owner. Request outages 24 hours in advance.

18.20 Submittals: Submittals shall include product data for all materials specified including each switchboard, panelboard, transformer, safety switch, lighting fixture, overcurrent protective device, fire alarm system, surface raceway, wireway, fitting, wiring device, accessory, and component indicated. Include dimensions and manufacturers technical data on features, performance, electrical characteristics, ratings and finishes.

16.21 Guarantee:

The Contractor shall guarantee the materials and workmanship covered by these drawings and specifications for a period of one year from the date of acceptance by the Owner. The Contractor shall repair and/or replace any parts of any system that may prove to be defective at no additional cost to the owner within the guarantee period.

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

SHEET TITLE

ELECTRICAL
SPECIFICATIONS

DRAWN BY: T.E.H.
APPROVED: T.E.H.

Hardison & Clark Plans 5-4-2016 2.dwg

DATE: May 4, 2016

OWNER APPROVAL
BY:

DATE:

SHEET E-1

OF 12

| | | | | | | | | | |
|------------------------------------|---------------------------|---|-----------|--------------------------|-------------------------------|----------------|------|------|------|
| Panelboard: "P-1" Front Unit Panel | | | | | | | | | |
| Mounting: Flush | | Voltage: 208-120 Volt, 1 Phase , 3 Wire | | | | | | | |
| NEMA 1 Rated | | Mains: ML | | Min. AIC Rating: 22 KAIC | | | | | |
| Frame: 125 Amp. | | | Trip: N/A | | | Phase Load KVA | | | |
| CKT. | Description | Load | Trip | CKT. | Description | Load | Trip | Load | Load |
| 1 | Receptacles - Living Area | 1.4 | 15 | 2 | Receptacles - Washer | 1.4 | 20 | 2.8 | |
| 3 | Receptacles - Kitchen (L) | 1.4 | 15 | 4 | Receptacles - Kitchen (R) | 1.4 | 15 | | 2.8 |
| 5 | Receptacle - Dryer | 2.0 | 30 | 6 | Air Handler w/ Aux. Heaters | 3.5 | 30 | 5.5 | |
| 7 | | ↓ | 30 | 8 | | ↓ | 30 | | 5.5 |
| 9 | Range Hood | 0.5 | 15 | 10 | Kitchen Lights | .05 | 15 | 1.0 | |
| 11 | Heat Pump (Exterior) | 1.1 | 15 | 12 | Living Area & Exterior Lights | 0.1 | 15 | | 1.2 |
| 13 | | ↓ | 15 | 14 | Bathroom Lights | 0.1 | 15 | 1.2 | |
| 15 | Receptacle - Bathroom | 1.4 | 20 | 16 | Bedroom & Exterior Lights | 0.2 | 15 | | 1.6 |
| 17 | Water Heater | 3.0 | 30 | 18 | | | | 3.0 | |
| 19 | | ↓ | 30 | 20 | | | | | 3.0 |
| 21 | | | | 22 | | | | | |
| 23 | | | | 24 | | | | | |

| | |
|-----------|------|
| Total L1 | 13.5 |
| Total L2 | 14.1 |
| Total KVA | 27.6 |

120 Amps Total
@ 230 Volts, 1 Phase

| | | | | | | | | | |
|-------------------------------------|---------------------------|---|-----------|--------------------------|------------------------------|----------------|------|------|------|
| Panelboard: "P-2" Middle Unit Panel | | | | | | | | | |
| Mounting: Flush | | Voltage: 208-120 Volt, 1 Phase , 3 Wire | | | | | | | |
| NEMA 1 Rated | | Mains: ML | | Min. AIC Rating: 22 KAIC | | | | | |
| Frame: 125 Amp. | | | Trip: N/A | | | Phase Load KVA | | | |
| CKT. | Description | Load | Trip | CKT. | Description | Load | Trip | Load | Load |
| 1 | Receptacles - Living Area | 1.4 | 15 | 2 | Receptacles - Washer | 1.4 | 20 | 2.8 | |
| 3 | Receptacles - Kitchen (R) | 1.4 | 15 | 4 | Receptacles - Kitchen (L) | 1.4 | 15 | | 2.8 |
| 5 | Receptacle - Dryer | 2.0 | 30 | 6 | Air Handler w/ Aux. Heaters | 3.5 | 30 | 5.5 | |
| 7 | | ↓ | 30 | 8 | | ↓ | 30 | | 5.5 |
| 9 | Range Hood | 0.5 | 15 | 10 | Bedroom Receptacles | 1.4 | 15 | 0.9 | |
| 11 | Heat Pump (Exterior) | 1.1 | 15 | 12 | Living Area & Kitchen Lights | 0.1 | 15 | | 1.2 |
| 13 | | ↓ | 15 | 14 | Bedroom & Exterior Lights | 0.2 | 15 | 1.3 | |
| 15 | Receptacle - Bathroom | 1.4 | 20 | 16 | | | | | 1.4 |
| 17 | Bathroom Lights | 0.1 | 15 | 18 | | | | 0.1 | |
| 19 | Water Heater | 3.0 | 30 | 20 | | | | 3.0 | |
| 21 | | ↓ | 30 | 22 | | | | | 3.0 |
| 23 | | | | 24 | | | | | |

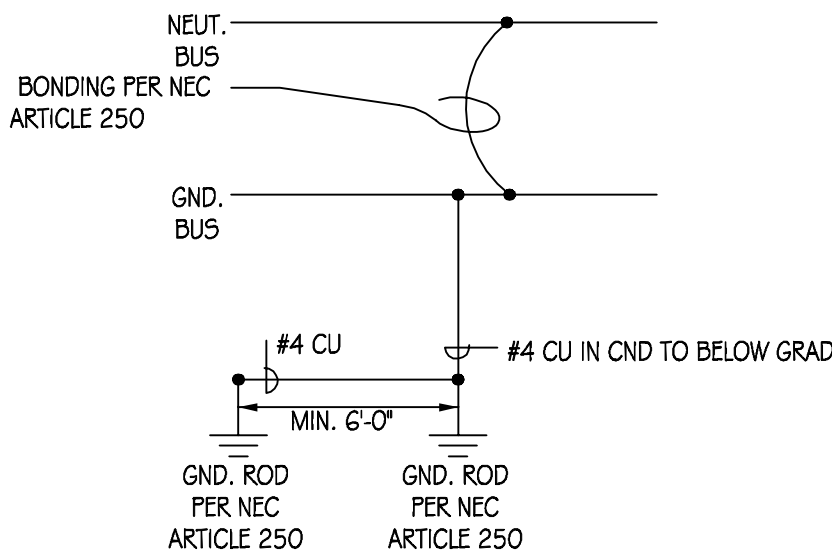
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|-----------|------|
| Total L1 | 13.6 |
| Total L2 | 13.9 |
| Total KVA | 27.5 |

120 Amps Total
@ 230 Volts, 1 Phase

| | | | | | | | | | |
|--|----------------------------------|---|-----------|--------------------------|---------------------------|----------------|------|------|------|
| Panelboard: "P-3" Rear Unit Panel (Existing) | | | | | | | | | |
| Mounting: Flush | | Voltage: 208-120 Volt, 1 Phase , 3 Wire | | | | | | | |
| NEMA 1 Rated | | Mains: ML | | Min. AIC Rating: 22 KAIC | | | | | |
| Frame: 125 Amp. | | | Trip: N/A | | | Phase Load KVA | | | |
| CKT. | Description | Load | Trip | CKT. | Description | Load | Trip | Load | Load |
| 1 | Receptacles - Living Area | 1.4 | 15 | 2 | Receptacles - Washer | 1.4 | 20 | 2.8 | |
| 3 | Receptacles - Kitchen (R) | 1.4 | 15 | 4 | Receptacles - Kitchen (L) | 1.4 | 15 | | 2.8 |
| 5 | Receptacle - Dryer | 2.0 | 30 | 6 | Receptacles - Bathroom | 1.4 | 30 | 3.4 | |
| 7 | | ↓ | 30 | 8 | Receptacles - Bedroom | 1.4 | 30 | | 3.4 |
| 9 | Range Hood | 0.5 | 15 | 10 | Kitchen & Bathroom Lights | 0.1 | 15 | 1.0 | |
| 11 | Heat Pump Package Unit (on Roof) | 1.9 | 15 | 12 | Bedroom & Exterior Lights | 0.1 | 15 | | 2.0 |
| 13 | | ↓ | 15 | 14 | | | | 1.9 | |
| 15 | Water Heater | 3.0 | 30 | 16 | | | | 3.0 | |
| 17 | | ↓ | 30 | 18 | | | | | 3.0 |
| 19 | | | | 20 | | | | | |
| 21 | | | | 22 | | | | | |
| 23 | | | | 24 | | | | | |

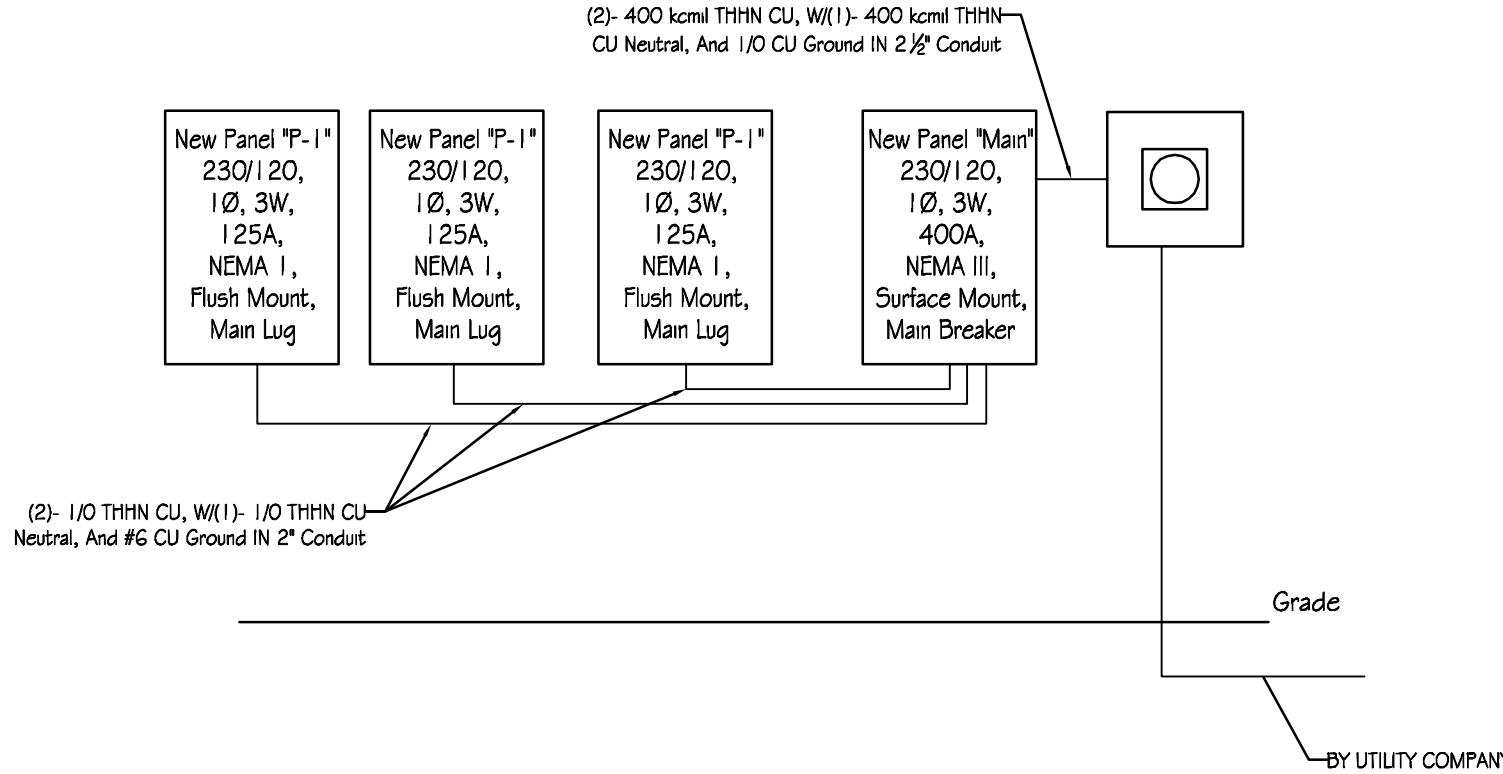
| | |
|-----------|------|
| Total L1 | 12.1 |
| Total L2 | 11.2 |
| Total KVA | 23.3 |

101 Amps Total
@ 230 Volts, 1 Phase



E-1 MTC

2 Typical Grounding Details
E-1 Scale: NTS



3 Riser Diagram
E-1 Scale: NTS

| | | | |
|------------------------------------|--------------|--------|-----------------------|
| Load Demand Calculation | | | |
| | Actual (KVA) | Factor | Calculated Load (KVA) |
| Lighting | 1.35 | 1.25 | 1.69 |
| Receptacle (First 10 KVA) | 10.00 | 1.00 | 10.00 |
| Receptacle | 6.80 | 0.50 | 3.40 |
| Sub Total | | | 15.09 |
| Hot Water | 9.00 | 1.00 | 9.00 |
| HT & CL Units (Largest of the Two) | 9.20 | 1.00 | 9.20 |
| Total | | | 33.29 |

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HARDISON & CLARK RESIDENTIAL HOTEL
2020 PRINCESS PLACE DRIVE
WILMINGTON, NC 28405-2730

SHEET TITLE
PANELS & ELECTRICAL DETAILS

DRAWN BY: T.E.H. APPROVED: T.E.H.

Hardison & Clark Plans 5-4-2016 2.dwg

DATE: May 4, 2016

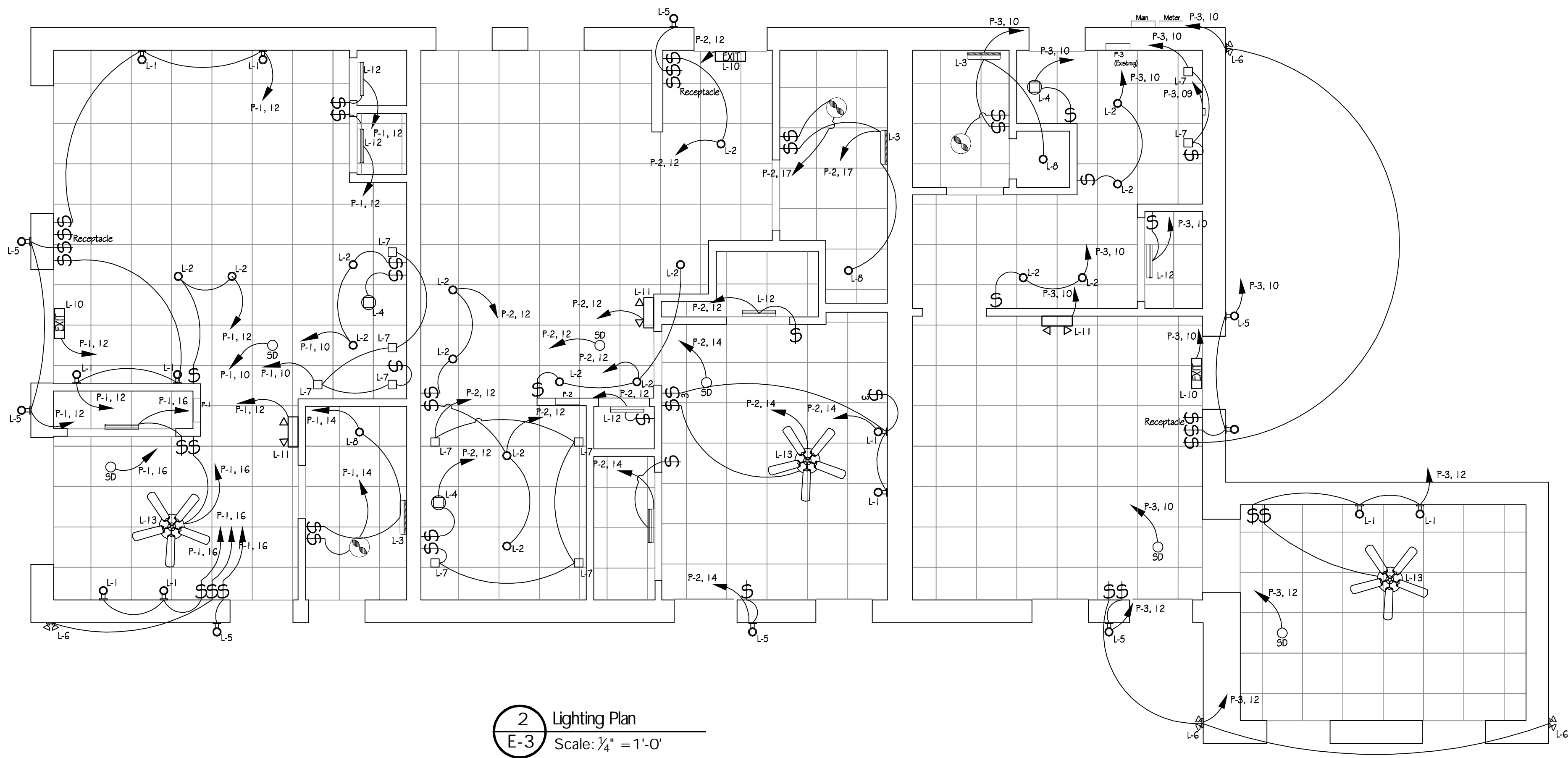
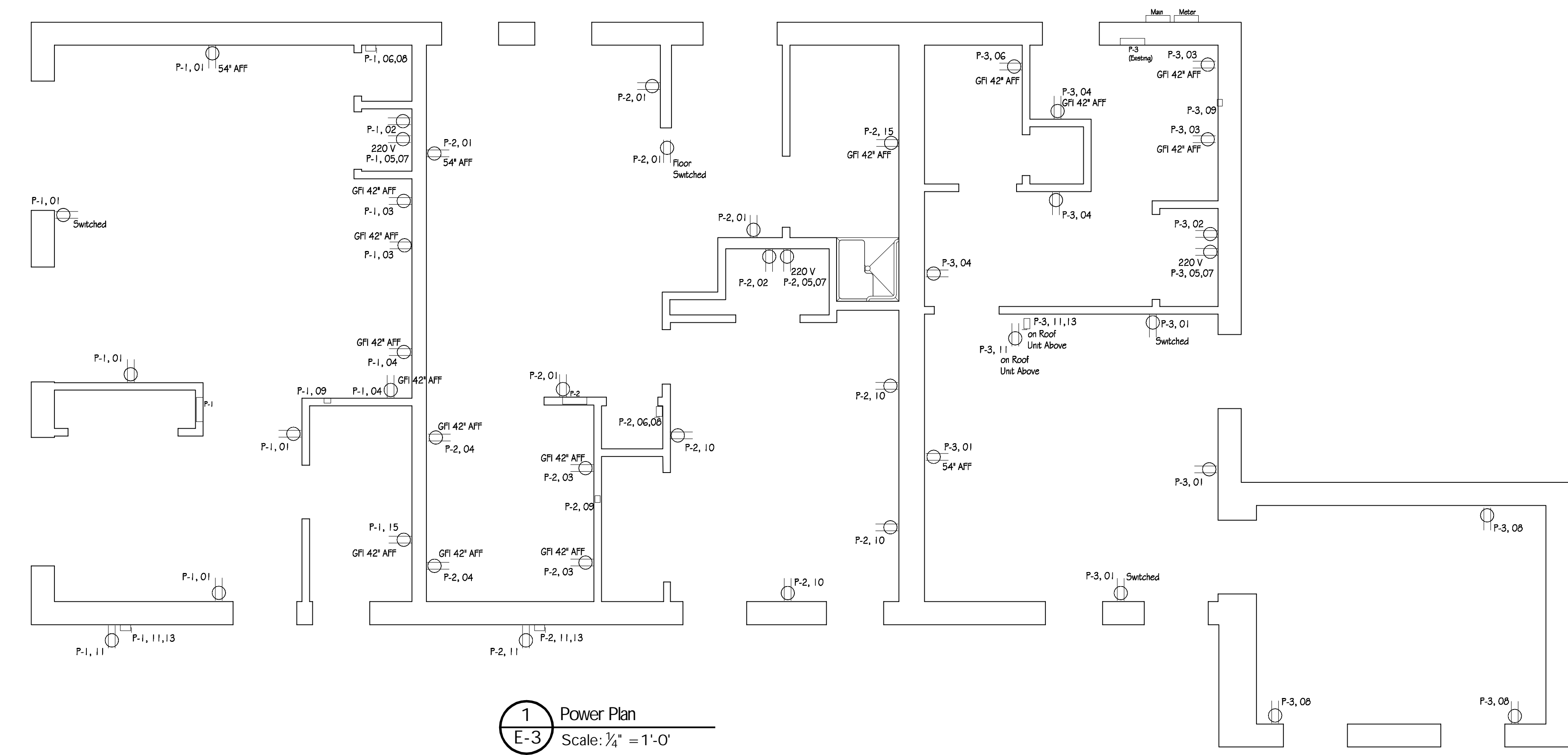
OWNER APPROVAL BY:

DATE:

SHEET E-2
OF 12

Building Lighting Schedule

| | Description | Size | Manufacture | Model Number | Number Bulbs | Voltage | Fixture Watts |
|------|--------------------------|-------------|-------------------|-------------------|--------------|---------|---------------|
| L-1 | Interior Wall Sconce | 8" X 8.5" | Aspect | U5560030LBNW5 | 1 | 120 | 10.5 |
| L-2 | 4" LED Can Light | 4" Diameter | EnviroLite | EV407941WH30-2 | 1 | 120 | 14.0 |
| L-3 | Vanity Light | 21" X 8" | Kichler | 37388 | 3 | 120 | 21.0 |
| L-4 | Pendent Light | 4.125 Ø | Olivero | 93903A | 2 | 120 | 7.0 |
| L-5 | Exterior Wall Sconce | 7" X 7" | Essex | HB7054A-35 | 1 | 120 | 5.6 |
| L-6 | Exterior Two Head Flood | 8" X 8" | Lithonia | OFLR GLC 120 P BZ | 2 | 120 | 20.0 |
| L-7 | Under Cabinet Light | 3.75" Ø | Sea Gull Lighting | 988595W-986 | 2 | 120 | 4.0 |
| L-8 | 4" LED Can Light (MR) | 4" Diameter | Globe Electric | 90752 | 1 | 120 | 9.0 |
| L-9 | Fan/Light Combination | N/A | Nutone | XN50 | 1 | 120 | 40.0 |
| L-10 | Emergency Exit Sign | N/A | Lithonia | LE EL N 5D | 1 | 120 | 2.8 |
| L-11 | Two Head Emergency Light | N/A | Lithonia | ELM2 LED | 2 | 120 | 1.4 |
| L-12 | Closet Light | 24" Long | Lithonia | UC24E120M6 | 1 | 120 | 16.0 |
| L-13 | Fan/Light Combination | 44" Ø | Hampton Bay | 14412 | 1 | 120 | 180 |



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SHEET TITLE
POWER & LIGHTING PLANS
DRAWN BY: T.E.H. APPROVED: T.E.H.
HARDISON & CLARK PLANS 5-4-2016 1.dwg
DATE: May 4, 2016

SHEET E-3
OF 12